



UHC MOS
Ultra High Current MOS

The PMA-2000R uses dual power transformers to provide extended high current capability with substantial power output. The chassis is divided to enable efficient placement of circuits so that left and right signal paths do not interfere with each other and negatively affect sound quality between the two channels.

■ **80 W + 80 W. More Power, and Greater Dynamic Range via UHC Ultra High Current Single Push-Pull Circuitry**

A high-current UHC-MOS amplification device has been used to boost the power supplied to the UHC single push-pull circuitry. This is an innovative design by DENON that finally resolves the conflicting problem of how to produce a solid capacity to drive the speakers while preserving the delicate details of the music. The PMA-2000R provides 80 watts per channel into 8 ohms with nearly double that into 4 ohms to drive virtually any speaker system. Superior current linearity ensures a stable supply of current to the speakers, bringing out all of the dynamic range irrespective of impedance or efficiency.

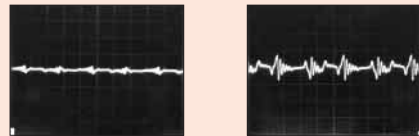
■ **The UHC-MOS High-Current Amplification Device**

To obtain the ability to bring out all the delicate nuances of sound and the need for dynamic speaker drive, the PMA-2000R has adopted a high-current UHC-MOS amplification device capable of delivering a peak current of 120A to the output stage, as much as 3~10 times greater than that of conventional MOS-FET devices. The current supply capacity of the UHC-MOS has been improved to exceed even that of bipolar transistors while preserving the high-quality sound of MOS-FETs. This ideal amplification device also incorporates single push-pull technology to eliminate variations in amplification operation.

■ **Leakage Canceling Dual Power Transformers**

The PMA-2000R features dual parallel-connected twin transformers with vastly improved characteristics in the magnetic and coiled wire circuits as originally developed for the DENON POA-S1 monaural power amp. The transformers have also been "leakage canceling" (L.C.) mounted in order to eliminate mutual interference caused by magnetic fields and other factors. As a result, leakage flux from the power transformers, a potential source of noise, is suppressed to a minimum, enabling the PMA-2000R's power supply section to supply clean, high-quality DC energy to the output stages.

Comparison of transformer leakage flux (Source: DENON)



Two LC mounted transformers

Two transformers positioned at same polarity

Comparison of single push-pull output current characteristics (Source: DENON)



UHC single push-pull



BJT single push-pull



Leakage cancelling (L.C.) mounted dual power transformers

■ **Rectifier Circuit Accommodating High-Speed, Large-Capacity Current**

Advanced technology that was developed for the DENON PMA-S1 integrated amp has been used in the rectifier circuit of the PMA-2000R. A large rectifier bridge with superior ability to supply high current and a first recovery diode with dramatically accelerated operating speed have been connected in parallel so that the PMA-2000R can accommodate both high speed and high current, to ensure true low impedance drive capability.



High current, high voltage, low ESR storage capacitors

■ **Highly Rigid, 6-Block Separated Chassis**

The highly rigid chassis of the PMA-2000R is based on the twin monaural construction featuring independent power amp blocks for the left and right channels in order to eliminate degradation in sound quality caused by noise and mutual interference between the circuits. In addition, circuits handling signals of different levels are also isolated in their own separate blocks, resulting in a sophisticated 6-block design that preserves signal purity all the way from input to output.

■ **Large, Gold-Plated Speaker Terminals Supporting Bi-Wiring**

■ **High-Performance MM & MC Phono Stage**

■ **Premium Parts Selected for Best Sound Quality**

Specifications

■ **Power Amp Section**

Rated output, both channels driven	80 W + 80 W (8 ohms, 20 - 20 kHz, 0.07%THD)
	160 W + 160 W (4 ohms, DIN 1 kHz, 0.7%THD)
Total Harmonic Distortion	0.01% (-3 dB rated output, 8 ohms load)

■ **Preamplifier Section**

Input sensitivity/Impedance	
PHONO	2.5 mV/47 kohms (MM), 200 μV/100 ohms (MC)
CD, TUNER, DVD/AUX	150 mV/47 kohms (Source Direct OFF)
TAPE-1/DAT, TAPE-2/MD	150 mV/47 kohms (Source Direct OFF), 150 mV/13 kohms (Source Direct ON)
RIAA deviation/PHONO	20 Hz ~ 20 kHz ±0.3 dB (MM/MC)

■ **General Characteristics**

S/N ratio (A-weighted)	
PHONO	91 dB (MM), 76 dB (MC)
CD, TUNER, DVD/AUX	110 dB (input terminals shorted/Source Direct ON)
Tone controls	100 Hz ±8 dB (BASS), 10 kHz ±8 dB (TREBLE)

■ **Other Specifications**

Power supply	AC 120 V, 60 Hz
Power consumption	6 A
Dimensions	434 (W) x 180 (H) x 478 (D) mm (including feet, knobs, terminals)
	17-1/8" x 7-1/8" x 18-3/4"
Weight	20.0 kg, 44 lbs

*Design and specifications are subject to change without notice.

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